NEW

Audio Processing System

OPTIMOD XPN-Enterprise

OPTIMOD XPN-Enterprise offers a completely new approach to processing compared to the existing Orban hardware product range. It is an easy-to-use, Linux-based, customizable processing platform for multiple broadcast stations or streaming services with centralized control. OPTIMOD XPN-Enterprise supports AES67, SMPTE2110/2027 – dual redundant networks, Dante and Livewire+ and allows you to set up a state-of-the-art AoIP audio processing system. By using appropriate XPN-E Node, other common methods of transport such as AES3 are supported as well and necessary outputs (FM Composite, DMPX, uMPX, and DAB+/HD Radio) for the distribution to the transmitter sites can be provided.

Key Features

OPTIMOD XPN-Enterprise server provides Orban's proprietary OPTICLOUD™ processing for **up to 8 FM and 8 DAB+/HD Radio channels plus 8 processed streaming outputs** for a total of 24 output channels using either the FM/HD Node or the FM Node. The outputs of the streaming processors can be added by using the optional AES Node with 8 AES Audio inputs and 8 AES Audio outputs. Alternatively, you could also use the Streaming Encoder Node which provides 4 Streaming Encoders in a 1/3 1RU hardware box with AoIP connection. Of course, it is possible to connect two Streaming Encoder Nodes to have 8 processed and encoded audio streams.

Each XPN-E Node is connected via AoIP Ethernet interface to the XPN-Enterprise server. We offer the following **XPN-E Nodes** to set up or expand your system according to your requirements:

- **AES Node:** 1/3 1RU hardware box with 8 AES3 inputs and 8 AES3 outputs
- **Kantar Node:** 1/3 1RU hardware box providing 4 Kantar Watermarking Encoders
- **Nielsen Node:** 1/3 1RU hardware box providing 4 Nielsen Watermarking Encoders
- **Streaming Node (available in 2022):** 1/3 1RU hardware box with 4 Streaming Encoders (FLAC, AAC, OPUS) and 4 Watermarking Encoders (Kantar or Nielsen)
- **FM/HD Node (available in 2022):** 1RU hardware box with dual redundant AoIP input with FM and HD/DAB outputs as follows: 1 digital MPX, 1 FM composite (analog MPX), 1 Orban uMPX, 1 AES3 and 1 analog audio output; the node also provides RDS encoding and dual FM/HD Watermarking Encoders (Kantar or Nielsen)
- **FM Node (available in 2022):** 1RU hardware box with dual redundant AoIP input with FM output as follows: 1 FM composite (analog MPX), 1 Orban uMPX and 1 AES3 audio output; the node also provides RDS encoding and an FM Watermarking Encoder (Kantar or Nielsen)

Audio Processing at its best: XPN-Enterprise's OPTICLOUD™ processing provides automatic level control of audio sources, sophisticated multi-band dynamic equalization with both subharmonic and harmonic synthesis, phase-skew correction, and a highly effective oversampled true-peak limiter that prevents distortion and optimizes codec performance without clipping or primitive pumping.

Factory Presets: As all our OPTIMODs, the XPN-Enterprise also comes with a variety of factory presets; Orban's exclusive "Less-More" controls simplify creating your own signature sound.

Centralized Control: The Dashboard app can be installed on Windows, Mac OS X or Linux operating systems and configure the complete system - XPN-Enterprise server unit as well as all of the XPN-E nodes.

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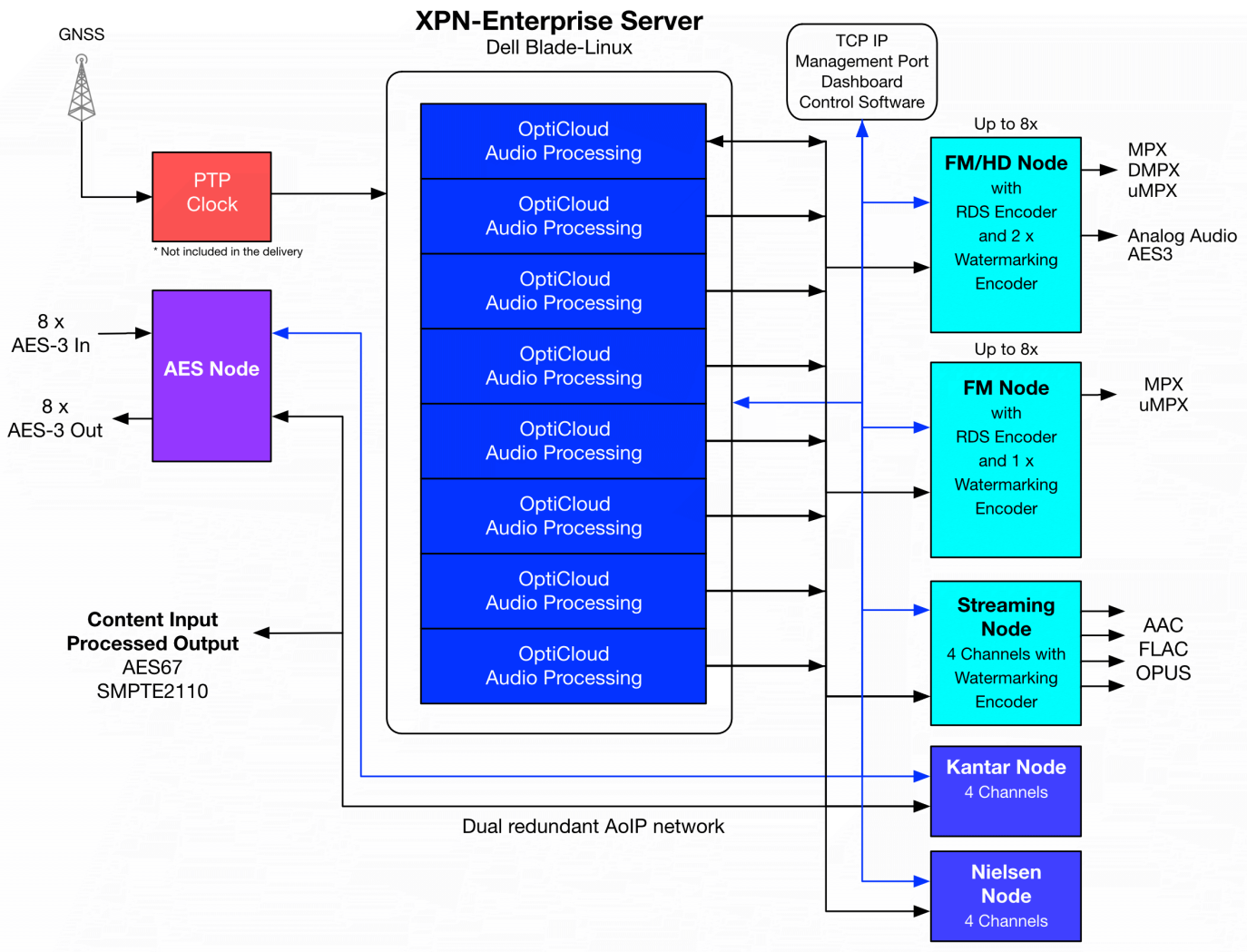
System Block Diagram

Below is a functional block diagram of an example OPTIMOD XPN-Enterprise system. Depending on your requirements, you can use the AES Node as your audio inputs, audio outputs or both. On the output side, the FM/HD Node allows you to select any of the available interfaces shown as your output for the processed FM and HD/DAB+ broadcasts. If you do not need an HD output for DAB+ or HD Radio, you can use the FM Node instead to provide the outputs shown below. Both the FM/HD and the FM Nodes provide an integrated RDS Encoder as well as Watermarking. In total, you can connect up to 8 FM/HD and/or FM Nodes. With each Streaming Node, you will be able to encode up to four processed streams using AAC, FLAC or OPUS codecs, each with its own dedicated Watermarking. Multiple Streaming Nodes can be used to stream content to end users or back to the studio to monitor and adjust the processing.



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